

REMARKS

This Application has been carefully reviewed in light of the Final Office Action mailed July 14, 2006. Claims 2-4, 6-13, 15-17, 19 and 20 are pending in this Application and Claims 1, 5, 14, and 18 were previously cancelled without prejudice or disclaimer. Claims 2-4, and 6-13, 15-17, 19 and 20 stand rejected under 35 U.S.C. § 103(a). Claims 2-3, 6-9, 11-13, 16 and 20 have been amended, and Applicants respectfully request reconsideration and favorable action in this case.

Claim Objections

Claims 2-4, 6-10, 12, and 13 were objected to for being dependent on a cancelled claim. Applicants amend Claims 2-3, 6-9, 12 and 13 to overcome this objection.

Rejections under 35 U.S.C. § 103

Claims 2, 6-10, 12, 15, 16, 19, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,467,702 issued to Malcolm David Dick Lambert et al. ("Lambert") in view of U.S. Patent No. 6,055,957 issued to Toshiyuki Hasegawa et al. ("Hasegawa") and further in view of U.S. Patent No. 5,127,584 issued to David P. Sczomak ("Sczomak"). Applicants respectfully traverse and submit the cited art combinations, even if proper, which Applicants do not concede, do not render the claimed embodiment of the invention obvious.

Claims 3, 4, 13 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lambert in view of Hasegawa and Sczomak, and further in view of U.S. Patent No. 6,811,105 issued to Masaaki Kato et al. ("Kato"). Applicants respectfully traverse and submit the cited art combinations, even if proper, which Applicants do not concede, do not render the claimed embodiment of the invention obvious.

In order to establish a *prima facie* case of obviousness, the references cited by the Examiner must disclose all claimed limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Furthermore, according to § 2143 of the Manual of Patent Examining Procedure, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in

the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

As hereby amended the claims recite that "each injection orifice has a respective groove-shaped recess in the cone of the valve needle for simultaneous fuel injection through the injection orifices." A premise of the rejection is that:

the language of claim 11, as presented previously, is broad enough to encompass the recesses that are presented by Lambert et al as the recesses are indeed symmetrical to the axis of the valve needle, but are not symmetrical to each other.

(OA at 2). However, in Lambert et al. only one of the alleged recesses communicates with a group of orifices for simultaneous fuel incention through the injection orifices. Lambert et al. teaches that only one annular recess communicates with all orifices of a group of orifices at a given time.

Further, the claims have been amended to clarify how the cone is adapted to compensate for asymmetrical flow conditions. In particular, the claims recite "at least one of the recesses has a contour different than at least another recess so that the cone is adapted to compensate for asymmetrical flow conditions." Support for this amendment is found in the specification at page 8, lines 3-10.

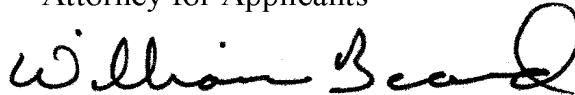
CONCLUSION

Applicants have made an earnest effort to place this case in condition for allowance in light of the amendments and remarks set forth above. Applicants respectfully request reconsideration of the claims as amended.

Applicants believe there are no fees due at this time, however, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512.322.2690.

Respectfully submitted,
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A handwritten signature in black ink, appearing to read "William Beard", with a stylized flourish at the end.

R. William Beard, Jr.
Reg. No. 39,903

Date: September 14, 2006

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